

SECTION II.E
INSPECTION SCHEDULE
Required Under 40 CFR 2 70.14(b) (5)

Introduction

The facility is inspected for malfunctions, deterioration, operator errors, and/or discharges representing a release or threat of a release of hazardous waste constituents to the environment. These inspections are conducted to identify and correct abnormal conditions before they impact human health or the environment.

This Inspection Schedule covers monitoring equipment, safety and emergency equipment, security devices, and operating and structural equipment that are critical to preventing, detecting or responding to environmental or human health hazards. A copy of this schedule is kept at the facility.

Any deterioration or malfunction of equipment or structures revealed by an inspection will be corrected to ensure that the condition does not lead to an environmental or human health hazard. Where a hazard is imminent or has already occurred, or deterioration or malfunction of equipment or structures has been observed, notification will be provided to the MDEQ and corrective action taken accordingly.

Inspections are recorded in an inspection log or summary and are kept for at least three (3) years from the date of inspection. The records include:

- 1) Date and time of inspection;
- 2) Name of inspector;
- 3) Prevailing weather conditions;
- 4) Notation of observations made; and
- 5) Date and nature of any repairs or other corrective actions.

General Facility Inspection Schedules

Inspections of key equipment are conducted each operating day and include: leachate pumps, flow meters, level indicators and collection manholes equipped with alarms to indicate unusual levels. Adequate daily cover of active cells is verified at the end of each operating day and is documented in the daily inspection form. Landfill personnel also perform weekly and/or monthly checks of facility equipment to ensure its reliable operation.

During days of operation, Landfill staff ensures that each container off-loaded will be completely emptied of hazardous waste prior to leaving the facility in accordance with the provisions of R 299.9207. If an off-loaded container is not empty, then Dow will ensure that the hazardous waste that remains in the vehicle or containers is accompanied by a manifest when leaving the designated facility.

The facility is inspected weekly and after storms (when the rainfall exceeds ½-inch) to detect evidence of:

1. Cap deterioration (erosion), malfunction or improper operation of run-on and run-off control systems;
2. Proper functioning of wind dispersal control systems, where present;
3. The presence of leachate in and proper functioning of leachate collection and removal systems, where present; and
4. Environmental degradation of exposed liner.

Cap inspections will be conducted quarterly on cells that are currently closed. Inspections will include an evaluation of vegetative cover, erosion, settlement, run-on and run-off as described in the Post-Closure Inspection forms attached to this section. The Post-Closure Plan, Section II.L of this application, contains other planned inspection activities after final closure of the Landfill.

Facility operating personnel perform routine vehicle and heavy equipment maintenance, including vehicle inspection and lubrication. In addition, fence line repair, litter clean-up, vermin control, and inspection/repair of facility safety equipment are conducted as required. Routine maintenance also includes: roads and ditches to minimize track out, lawn mowing, the vehicle wash facility, and 3600 Control Building. Environmental Operations regularly maintains the leachate collection system, leak detection/liner failure system, monitoring systems, Landfill alarm systems and instrumentation. Dow Security tests the Site alert system weekly.

Personnel Responsible for Equipment and Facility Inspections

Environmental Operations (EVO) performs most of the inspections required at the Landfill. EVO inspects key equipment such as: leachate pumps, flow meters, level indicators and collection manholes, heat tracing and other electrical and monitoring systems, and performs the cap inspections, as required.

Dow Security inspects the condition of hardware used to secure transport containers and inspects fire extinguishers at least annually.

The Landfill Technical Advisor or other operating personnel conducts weekly inspections of the facility building and vehicle wash building safety equipment. Roads, pump operations, pipeline condition, cells and the leachate collection system are inspected each operating day. Any maintenance or repairs noted in the inspection logs will be brought to the attention of the Landfill Technical Advisor in order to address them. The actions completed will then be documented in the inspection log. Maintenance activities recorded on the Landfill inspection logs will be described in the Annual Report.

Surveillance Procedures and Schedules

Dow Security personnel provide routine surveillance of the facility area and fenceline daily, during evenings, weekends and holidays. When the facility is operating, operations personnel provide direct and continuous surveillance to prevent spills of hazardous waste and unauthorized access to the facility.

Inspection Logs and Instructions

Included in this section are examples of the Daily, Weekly/Monthly/After Storm, and Post-Closure inspection logs. The logs in this procedure are examples, and changes to these logs may be made due to changes in facility operation, cell construction, facility modifications, and cell closure, as appropriate. Changes to these logs may be made without the need for a minor modification to the operating license. Revised inspection logs will become effective within 14 days of submittal to the MDEQ.

SALZBURG LANDFILL DAILY INSPECTION LOG
(maintained in compliance with Part 111 Rule 605 / 40 CFR 264.15)

Date:	Inspector:	Weather: (temp; wind direction/speed - if > 35 mph sustained for 1/2 hour, facility must cease landfill operation)
Time:		

DESCRIPTION	ACCEPTABLE?		OBSERVATIONS / CORRECTIVE ACTIONS <small>(40 CFR 264.15(b) - housekeeping, equipment functionality, leaks, erosion, deterioration, security)</small>	ACTIONS COMPLETED <small>(date)</small>
	yes	no		
Lift Station 25 - Cells 20-22 Leachate Sump				
Pump				
Level				
Flow Meter				
Lift Station 26 - Cells 20-22 LFDS				
Pump				
Level				
Flow Meter				
Cells 20-22				
Daily Cover				
Drainage (run-on/run-off)				
Lift Station 10 Sump				
Pump				
Level				
Flow Meter				
Lift Station 4				
Pump				
Level				
Flow Meter				

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Time:		

DESCRIPTION	ACCEPTABLE?		OBSERVATIONS / CORRECTIVE ACTIONS <small>(40 CFR 264.15(b) - housekeeping, equipment functionality, leaks, erosion, deterioration, security)</small>	ACTIONS COMPLETED <small>(date)</small>
	yes	no		
Manhole 14				
Alarms				
Manhole 15				
Alarms				
Security				
Gate 90				
Other Gates				
Fenceline				
Leachate Pipeline				
Vehicle Loading/Unloading				
Wildlife				
Roads				
Vehicle Trackout				
Trash/Litter				
Daily Cover				

INSTRUCTIONS FOR CONDUCTING DAILY INSPECTIONS

Lift Stations

Ensure lift stations are fully operational (is there power to the system?)
Ensure that flow and level meters are working.
Ensure pumps are powered and operational.
Ensure alarms are operable.

Leachate Pipeline:

Check leak detection instrumentation.
Check for physical signs of failure.

Man Holes:

Check and ensure high level alarms are operable

Security:

Check power and card reader to Gate 90 to ensure proper operation.
Check fence for integrity. Repair if needed.
Check all gates to ensure they are locked and chained tightly.
(Gates 91G, 92G, 93G, 78G, 84G)

Roads:

Check to see if they need to be washed/swept to prevent fugitive dust and trackout
Check to see that haul roads are clear of materials that could be tracked out.

Unloading Area:

Ensure loads of waste are being managed in the active area of the cell appropriately

Daily Cover:

Is there sufficient daily cover applied at the end of the operational day?
No run-on/run-off occurring.

Wildlife (quarterly)

As needed, ensure vermin are not burrowing into waste cells.
As needed, ensure large animals are not present during placement of liners.
This task may be on a less frequent occurrence than daily, depending on the presence of the animals (not RCRA requirement).

SALZBURG LANDFILL WEEKLY / MONTHLY / AFTER STORM INSPECTION LOG
(maintained in compliance with Part 111 Rule 605 / 40 CFR 264.15)

Date:	Inspector:		Weather:	
Time:			(temp; wind direction/speed - if > 35 mph sustained for 1/2 hour, facility must cease landfill operation)	

DESCRIPTION	ACCEPTABLE?		OBSERVATIONS / CORRECTIVE ACTIONS <small>(40 CFR 264.15(b) - housekeeping, equipment functionality, leaks, erosion, deterioration, security)</small>	ACTIONS COMPLETED <small>(date)</small>
	yes	no		
Cells 20-22 - weekly				
Liner				
Lift Station 2-A (cells 3,4 & 5) - monthly				
Pump				
Level				
Flow Meter				
Lift Station 3-A (cells 3-5 LFDS) - monthly				
Pump				
Level				
Flow Meter				
Lift Station 5 (cells 6,7 & 8) - monthly				
Pump				
Level				
Flow Meter				
Lift Station 6 (cells 6-8 LFDS) - monthly				
Pump				
Level				
Flow Meter				

SALZBURG LANDFILL WEEKLY / MONTHLY / AFTER STORM INSPECTION LOG
(maintained in compliance with Part 111 Rule 605 / 40 CFR 264.15)

Date:	Inspector:		Weather:	
Time:			(temp; wind direction/speed - if > 35 mph sustained for 1/2 hour, facility must cease landfill operation)	

DESCRIPTION	ACCEPTABLE?		OBSERVATIONS / CORRECTIVE ACTIONS <small>(40 CFR 264.15(b) - housekeeping, equipment functionality, leaks, erosion, deterioration, security)</small>	ACTIONS COMPLETED <small>(date)</small>
	yes	no		
Lift Station 7 (cells 9 & 10) - monthly				
Pump				
Level				
Flow Meter				
Lift Station 8 (cells 9-10 LFDS) - monthly				
Pump				
Level				
Flow Meter				
Lift Station 9 (cells 11 & 12) - monthly				
Pump				
Level				
Flow Meter				
Lift Station 11 (cells 11-12 LFDS) - monthly				
Pump				
Level				
Flow Meter				
Lift Station 12 (cells 11 & 12) - monthly				
Pump				
Level				
Flow Meter				

SALZBURG LANDFILL WEEKLY / MONTHLY / AFTER STORM INSPECTION LOG
(maintained in compliance with Part 111 Rule 605 / 40 CFR 264.15)

Date:	Inspector:		Weather:	
Time:			(temp; wind direction/speed - if > 35 mph sustained for 1/2 hour, facility must cease landfill operation)	

DESCRIPTION	ACCEPTABLE?		OBSERVATIONS / CORRECTIVE ACTIONS <small>(40 CFR 264.15(b) - housekeeping, equipment functionality, leaks, erosion, deterioration, security)</small>	ACTIONS COMPLETED <small>(date)</small>
	yes	no		
Lift Station 13 (cells 13 & 14) - monthly				
Pump				
Level				
Flow Meter				
Lift Station 19 (cells 15 & 16) - monthly				
Pump				
Level				
Flow Meter				
Lift Station 20 (cells 15 & 16) - monthly				
Pump				
Level				
Flow Meter				
Lift Station 21 (cells 17, 18 & 19) - monthly				
Pump				
Level				
Flow Meter				
Lift Station 23 (cells 17, 18 & 19) - monthly				
Pump				
Level				
Flow Meter				

SALZBURG LANDFILL WEEKLY / MONTHLY / AFTER STORM INSPECTION LOG
(maintained in compliance with Part 111 Rule 605 / 40 CFR 264.15)

Date:	Inspector:		Weather:	
Time:			(temp; wind direction/speed - if > 35 mph sustained for 1/2 hour, facility must cease landfill operation)	

DESCRIPTION	ACCEPTABLE?		OBSERVATIONS / CORRECTIVE ACTIONS <small>(40 CFR 264.15(b) - housekeeping, equipment functionality, leaks, erosion, deterioration, security)</small>	ACTIONS COMPLETED <small>(date)</small>
	yes	no		
Lift Station 51 (Salzburg Road) - weekly				
Pump				
Level				
Flow Meter				
Lift Station 52 (Sludge Dewatering Facility) - weekly				
Pump				
Level				
Flow Meter				
3600 Building - weekly				
Two-way radio				
Telephone				
Eye wash				
Safety Shower				
Spill Response Equipment (perform quarterly)				

INSTRUCTIONS FOR CONDUCTING WEEKLY/MONTHLY/AFTER STORM INSPECTIONS

Lift Stations

Ensure lift stations are fully operational (is there power to the system?)
Ensure that flow and level meters are working.
Ensure pumps are powered and operational.
Ensure alarms are operable.

Liner:

Check that exposed liner is intact; no visible damage.

Daily Cover:

Is there sufficient daily cover applied at the end of the operational day?
No run-on/run-off occurring.

Run-on/Run-off (quarterly)

Ensure drain sumps are operational and unobstructed.
Ensure ditches allow unobstructed flow to facilitate runoff transport.

SALZBURG LANDFILL POST-CLOSURE INSPECTION LOG (maintained in compliance with SLF Post-Closure Plan)				
Date:	Inspector:		Weather:	
Time:			(temp; wind direction/speed; overall conditions)	
DESCRIPTION (frequency)	ACCEPTABLE?		OBSERVATIONS / CORRECTIVE ACTIONS	ACTIONS COMPLETED (date)
	yes	no		
Security (refer to weekly inspection forms)				
Gate 90 card reader				
Gates				
Fenceline				
Cap Inspection - Quarterly				
Erosion				
Vegetative Cover (spring and fall)				
Settlement				
Ponding				
Leachate Seeps				
Burrowing Animals				
Gas Vents				
Drain sumps				
Run-on/Run-off (quarterly and after heavy rain event (> 1/2 inch rainfall))				
Ditches				
Site Benchmarks (every 3 years)				
Monitoring Wells (semi-annually)			*REFER TO AND USE MONITOR WELL INSPECTION FORM	
Liner Failure/Leak Detection System (currently monthly on closed cells; expected to be semi-annually upon full post-closure)				
Leachate Collection System (currently monthly on closed cells; expected to be semi-annually upon full post-closure)				

INSTRUCTIONS FOR CONDUCTING POST-CLOSURE INSPECTIONS

Security:

Check power and card reader to Gate 90 to ensure proper operation.

Check fence for integrity. Repair if needed.

Check all gates to ensure they are locked and chained tightly.

(Gates 91G, 92G, 93G, 78G, 84G)

Assure warning signs are present and wording is visible at all landfill entrances.

Cap Inspections:

Perform on closed cells quarterly.

Look for areas of erosion on slide slopes of caps when ground is not frozen.

Evaluate vegetative cover during Spring and Fall (void of deep rooted plant species; areas of sparse vegetation).

Settlement - Spring and Fall (low spots on cap should not be present).

Ponding - annually, after a rain event (prevent low spots on cap where ponding may occur due to settlement or poor drainage).

Evaluate if leachate seeps are present.

Burrowing animals should not be present.

Gas vents - annually (should be free of obstructions such as birds nests, etc.).

Drain sumps

Run-on/Run-off (quarterly)

Ensure drain sumps are operational and unobstructed.

Ensure ditches allow unobstructed flow to facilitate runoff transport.

Leachate Lift Stations/Liner Failure Detection System - Post Closure

Currently closed cells inspected quarterly.

Under full post-closure, leachate collection and liner failure detection system will be inspected bi-annually

* refer to Section II-L of Landfill Operating License Application for further reduction of inspection schedule

Site Benchmarks:

Ensure benchmarks are identified by permanent markers that are protected and maintained.

Do they need to be scheduled for resurveying (required every 3 years)?